

# BEST AVAILABLE COPY

## REMARKS

The Applicant does not believe that entry of the accompanying response will result in the introduction of new matter into the present application for invention. Therefore, the Applicant, respectfully, requests that the accompanying response be entered in and that the claims to the present application, kindly, be reconsidered.

The Final Office Action dated June 22, 2004 has been received and considered by the Applicant. Claims 1-22 are pending in the present application for invention. Claims 1-8 and 11-22 stand rejected by the June 22, 2004 Final Office Action. Claims 9-12 are objected to by the June 22, 2004 Final Office Action.

The Final Office Action dated June 22, 2004 includes a rejection of Claim 17 under the provisions of 35 U.S.C. §103(a) as being obvious over Takasago et al. The Applicant, respectfully, points out that this rejection is the first rejection to Claim 17. All of the previous office actions contained objections to Claim 17; however, none of the previous office actions rejected Claim 17. The previous response submitted by the Applicant on June 10, 2004 did not amend Claim 17 at all. The amendment submitted March 11, 2004 by the Applicant also did not amend Claim 17. Therefore, this rejection is a new rejection that was not necessitated by any amendment that was made by the Applicant.

The MPEP §706.07 details when a Final Rejection is proper on second action. "Under present practice, second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c)."

The Applicant, respectfully, requests that the Primary Examiner reconsider the holding of finality of the June 22, 2004 Office Action and that the finality of the June 22, 2004 rejection be withdrawn.

The accompanying response has been made to fully respond to a Final Office Action, which finality is fully anticipated to be withdrawn because it is premature. The Applicant, therefore, reasonably anticipates an opportunity to respond to a non-final office action.

The Final Office Action dated June 22, 2004 contains a rejection to Claims 3 and 15 under the provisions of 35 U.S.C. §102(b). The previous response submitted by the Applicant on June 10, 2004 did not amend Claims 3 and 15 at all. The amendment submitted March 11, 2004 by the Applicant amended Claims 3 and 15 by removing the preferred amount for the preselected fraction of the threshold. The Applicant respectfully submits that Claims 3 and 15 after the amendment submitted March 11, 2004 still recited that the threshold was a preselected fraction of the maximum value. Therefore, the Applicant does not believe that the new rejection is justified. The Applicant, respectfully, requests that the Primary Examiner reconsider the holding of finality of the June 22, 2004 Office Action and that the finality of the June 22, 2004 rejection be withdrawn.

The Final Office Action objects to Claims 9-12. The Examiner states that the Claim 9 recites steps of "optionally" entering tracks in an alarm list and storing the alarm list if "applicable". The Examiner further states that Claim 11 contains the phrase "optionally". The Examiner states that the use of the foregoing terms suggest that these limitations are not necessary. The Applicant respectfully disagrees. The foregoing limitations provide limiting features. However, in an effort to move this case towards allowance and/or place the present application for invention in better condition for appeal, the terms "applicable" and "optionally" have been removed from Claim 9 per the Examiner's request.

The Office Action rejects Claims 8, 11 and 12 under the provisions of 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner states that the phrase "particularly a DVR disc" renders Claims 8 and 11 indefinite because it is unclear whether the phrase is part of the claimed invention. The foregoing amendment has removed the complained of term "particularly a DVR disc" from Claims 8 and 11.

The Office Action rejects Claims 1-3 and 13-15 under the provisions of 35 U.S.C. §102(b) as anticipated by Takasago et al. (hereinafter referred to as Takasago et al.). The Final Office Action contains a section beginning on page 10 referred to as **Response to Arguments** in which the Examiner's positions are provided regarding the Applicant's previous arguments. The Applicant would like to point out that the Examiner's comments in the **Response to Arguments** regarding Applicant's admissions/arguments are incorrect. Specifically, the statement within the **Response to Arguments** that the Applicant admits Takasago et al. teach defect detection. The

Applicant did not admit that Takasago et al. teach defect detection. The Applicant's previous response regarding Claim 1 stated that Takasago et al. detail techniques that are related to off track detection. The Applicant in no way, manner or form admitted that Takasago et al. teach defect detection. As previously stated Takasago et al. teach detection of an off track condition and one of the reasons an off track condition can occur is because of a defect in the disc. The Final Office Action states that it is inherent that detection of a defect within a track involves the rating of the track for defects. The Applicant respectfully disagrees. Detection and rating are two separate actions. Takasago et al. teach actions that take place when off track situations occur. Takasago et al. do not provide any teaching or suggestion for the detection of a defect that does not result in an off track situation. In fact Takasago et al. teach that if a defect occurs or is detected without causing an off track situation, then the defect is acceptable and no action takes place (see column 5, line 52 through column 6, line 14).

Regarding Claim 1, the Examiner states that Takasago et al. disclose in FIG. 1 the examining of a record carrier for the presence of a defect. The Applicant, respectfully, points out that Takasago et al. teach identifying the occurrence of an off track situation which Takasago et al. teach can be caused by a number of events including movement of the disc/player or lack of a level surface. A defect in the optical disc is only one of the situations that can cause an off track situation as taught by Takasago et al. (see column 3, lines 28-60). Takasago et al. teach detection of an off track situation and not detection of defects within the disc. In contradistinction to the teaching of Takasago et al., the present invention as recites by the rejected claims defines subject matter for rating of tracks on the disc for the purpose of determining if there is a defect in the track. Takasago et al. provide no teaching, suggestion or motivation for rating of a track for a defect. Takasago et al. examines the track signal to determine if there is an off track situation which could be the result of a vibration (see column 3, lines 1-6). Takasago et al. provide no teaching for rating the track for defects. Accordingly, the rejection to Claim 1 is respectfully traversed.

Regarding Claim 2, the Examiner states that column 5, line 47 to column 6, line 14 of Takasago et al. disclose that a track is determined as being defective if the absolute value of the tracking signal exceeds a predetermined threshold. The Applicant points out that column 5, line 47 to column 6, line 14 of Takasago et al. discuss tracking errors determined by application of a tracking signal to a pair of comparators. The tracking signal as taught by

Takasago et al. that results from the light spot tracking near the center of the track results in each comparator yielding a logical "0" indicative of proper tracking. A tracking signal as taught by Takasago et al. that results from the light spot the digresses from the center of the track results in a tracking signal having an amplitude with an absolute value larger than the absolute value of  $+V_{REF}$  or  $-V_{REF}$ . That portion of the tracking signal having an amplitude larger with an absolute value than larger than the absolute value of  $+V_{REF}$  or  $-V_{REF}$  results the one of the comparators yielding a logical "1" for the period of time that the absolute value of the tracking signal is larger than the absolute value of  $+V_{REF}$  or  $-V_{REF}$ , which is interpreted as not tracking properly. The Applicant's position is that the comparator of Takasago et al. providing a logical "1" is not equivalent to rating a track as defective much less rating a track as defective if the absolute value exceeds a predetermine value for a predetermined time as recited by rejected Claim 2. Takasago et al. teach identifying track digression and the corrective actions that take place during periods of track digression and not rating the tracks.

A tracking signal as taught by Takasago et al. can also be determined as the light spot being off track resulting in multiple logical "1" pulses. The multiple logical "1" pulses results from a waveform as shown in FIG 3b of Takasago et al. There is no disclosure, or suggestion, within Takasago et al. for rating a track as being defective as stated by the Examiner in the Final Office Action. Moreover, there is no disclosure, or suggestion, within Takasago for determining that a track is defective if the absolute value that the tracking signal is greater than a predetermined threshold. Simply put, Takasago et al. determines if the light spot is on track or off track, not whether the track is defective or not. Accordingly this rejection is, respectfully, traversed.

Regarding Claim 13, the Examiner states that Takasago et al. disclose at column 7, lines 6-19 that the recording process can be discontinued based on the tracking signal. The foregoing amendment to the claims has amended Claim 13 to recite the feature of the invention of rating the track for defects in order to clearly distinguish the present invention from the teaching of Takasago et al.. Takasago et al. provide no teaching towards rating a track. Column 7, lines 6-19 of Takasago et al. teach an action that can takes place on the determination of the light spot being off track based on the level of the tracking signal. The Applicant's position is that the categorization of a tracking signal as being indicative of the light spot being off track as taught by Takasago et al. is not equivalent to "rating the track" as recited by the rejected claims.

The Applicant, respectfully, submits that amended Claim 13 is clearly allowable over the cited reference. Takasago et al.

Regarding Claim 14, the Examiner states that Takasago et al. disclose at column 5, line 47 - column 6, line 14 that the recording is discontinued if the tracking signal exceeds a predetermined value for a predetermined period of time. The Applicant's position is that this is an incorrect reading of column 5, line 47 - column 6, line 14 of Takasago et al. Column 5, line 47 - column 6, line 14 of Takasago et al. teach that if the digression of the tracking signal reaches a certain level an indication that tracking signal is off track will result by multiple logical "1" pulses being emitted. The multiple logical "1" pulse result from a sway in the tracking signal as shown in FIG. 3b, reference numeral 16, of Takasago et al.; which is not equivalent to exceeding a predetermined threshold for a predetermined period of time. There is no predetermined period of time within the tracking signal that is exceeded within Takasago et al. taught, or suggested, to create the additional logical "1" pulses. The additional period of time referred to by Takasago et al. is the additional logical "1" pulses themselves and not a period of time that the tracking signal exceeds a threshold. Claim 14 to the present invention recites that if the tracking signal itself exceeds a predetermined value and for a predetermined time then the recording process is discontinued. There is no disclosure or suggestion within Takasago et al. that the tracking sign exceeding a predetermined value for a predetermined time results in the discontinuing of recording. Accordingly this rejection is, respectfully, traversed.

The Examiner rejects Claims 3 and 15 stating that Takasago et al. disclose the tracking signal has a maximum value corresponding to the maximum lateral deviation with respect to the center of the track. The Examiner's position is that a preselected fraction of the reference voltages is chosen by Takasago et al. as the predetermined threshold that is exceeded for a predetermined time period. The Applicant draws the Examiner's attention to the clear teaching of Takasago et al. on column 5, lines 47-49 wherein it is stated that the tracking error signal is compared with reference voltages. There is no disclosure or suggestion within Takasago et al. for taking any fractional portion of the reference voltages as the predetermined threshold. Furthermore, the maximum lateral deviation disclosed by Takasago et al. is the occurrence of an off track situation and the tracking error signal taught by Takasago et al. does not have a greater value during the period of off track. Takasago et al. teach that during off track (maximum lateral deviation) the tracking error signal swings from plus to minus exceed the

reference voltages, but the tracking error signal is no greater than in track digressions (see FIG. 3a and FIG. 3b). A person skilled within the art would not be motivated by the teaching of Takasago et al., as illustrated in FIG. 3a and FIG. 3b of that reference, to create a system as defined by rejected Claims 3 and 15 wherein the tracking signal has a maximum value corresponding to the maximum lateral deviation with respect to the center of the track because, simply put, this is not taught by Takasago et al. There is no teaching within Takasago et al. for the tracking error signal value to have a maximum value that occurs at a point of the maximum lateral deviation from the center of the track. Takasago et al. teach that the error tracking signal swings from positive to negative during off track conditions. There is not even a mention of using a fractional portion of the reference voltages, or that the reference voltages are a fractional portion of a predetermined threshold as asserted by the Examiner. Accordingly, this rejection of Claims 3 and 15 is respectfully traversed.

The Office Action rejects Claims 4, 16, 17, 18, 19, 21, and 22 under the provisions of 35 U.S.C. §103(a) as being unpatentable over Takasago et al. applied to claims 2 and 14 above.

Regarding Claims 18 and 21, the Examiner states that Takasago et al. disclose at column 5, lines 49 - 51 a tracking signal having a nominal value of zero, and that the tracking signal has a maximum value. The Examiner also asserts that a preselected fraction of the maximum value is chosen as the predetermined signal threshold; which as previously discussed is an unfounded assertion. The Examiner admits that Takasago et al. is silent regarding the predetermined threshold being either 0.5 or 2/3 of the maximum value corresponding to the maximum lateral deviation. The Examiner then states that the Applicant has failed to show that the predetermined threshold being either 0.5 or 2/3 of the maximum value corresponding to the maximum lateral deviation is used for a particular purpose, or solves a stated problem. Initially, the Applicant, respectfully, points out that this line of reasoning is not proper for an obviousness rejection. Moreover, the Applicant points out that there is a clear purpose and advantage to the stated limitations in that the present invention is rating the track. The problem here is that the Examiner is attempting to read on the present invention a reference that does not rate tracks but only provides data related to whether the error tracking signal is digressing or is completely off track. There would be no purpose within such a reference as Takasago et al. to determine the extent to which the tracking error signal has digressed. The Applicant draws the Examiner's

attention to page 10, lines 4-8 of the specification to the present invention wherein the tracking error of 0.5 of the maximum value is disclosed as the preferred error tracking parameter to if the track is defective. The Examiner has not found any teaching, or suggestion, of any such values and, therefore, attempts to brush aside the specific definition supplied by rejected Claim 18 with an assertion that it is all the same the reference voltages of Takasago et al. The Applicant points out that the Examiner continues to read the reference voltage of Takasago et al. as equivalent to the predetermined thresholds of the invention and also as equivalent to the preselected fractions of the predetermined threshold. The limitations of the claims must each be given consideration. The Examiner may not simply brush aside specific limitations by reading the same reference voltages of Takasago et al. on the predetermined threshold and the specifically different recitation of a preselected fraction of the predetermined threshold.

Regarding Claim 21, the Applicant draws the Examiner's attention to the specification of the present invention at page 12, lines 14-22 wherein the value of  $2/3$  is discussed as preventing accidental writes to the adjacent track. Accordingly, there is a stated purpose to  $2/3$  fractional amount recited by rejected Claim 21 contrary to the assertions of the Examiner. The Applicant points out that of the cited reference, Takasago et al. has no such stated purpose, perhaps this is the reason that Takasago et al. does not disclose, or teach using fractions of the reference voltages for any reason whatsoever.

Accordingly, the rejection to Claims 18 and 21 is traversed.

Regarding Claims 4, 16, 19 and 22, the Examiner admits states that Takasago et al. do not disclose the predetermined time periods recited by the rejected claims in a range between 50  $\mu$ s and 75  $\mu$ s. Furthermore, regarding claims in 19 and 22, the Examiner states that Takasago et al. do not disclose that the recited period of time is approximately 60  $\mu$ s. The Applicant, respectfully, points out that Final Office Action does not even contend that Takasago et al. suggest implementing any of the foregoing time periods. The Examiner's position is that it would have been obvious for a person skilled in the art because the Applicants has not disclosed any advantage. Initially, the Applicant objects to the line of reasoning used in this rejection because the Examiner has not provided any authority that such a line of reasoning is valid for making a rejection based on obviousness. Moreover, the advantages are clearly stated in the specification, therefore, assuming for the sake of argument, that such a line of reasoning were valid, the advantage of recited period of time is approximately 60  $\mu$ s is given by the specification

of the present invention at page 12, lines 14-22 wherein the value of 60  $\mu$ s is discussed as preventing accidental writes to the adjacent track. The range between 50  $\mu$ s and 75  $\mu$ s is used as a range around the preferred value of 60  $\mu$ s as an acceptable range. The Applicant's position is that the Examiner has employed improper hindsight in this obviousness analysis. In order to determine obviousness there must be some suggestion of motivation of the prior art to make the modification. There has been no such suggestion of motivation within the prior art referenced by the Examiner to make the modification made in the Final Office Action. The Examiner has also not advanced any authority to support the assertion made in the Final Office Action that the foregoing rationale is a proper rationale for determining obviousness.

The MPEP at §2143 states that to "establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)." The Applicant respectfully points out that the Final Office Action does not satisfy any of the three foregoing criteria and, therefore, has not made a *prima and facie* case of obviousness. Moreover, the motivation to make the modification suggested by the Examiner must be found within the prior art reference, and the Examiner has in fact stated that is not found within Takasago et al. The Applicant, respectfully, points out that a person skilled in the art would not be motivated by the teaching of Takasago et al. to make the modification suggested by the Final Office Action. Takasago et al. pertains to identifying digressions within the tracking signal and correcting tracking errors. Takasago et al. does not pertain to identifying defective areas on a disk. For the foregoing reasons, this rejection is respectfully traversed.

The Final Office Action rejects Claim 17 under the provisions of 35 U.S.C. §103(a) as being unpatentable over Takasago et al. As previously discussed this is a new rejection that was not necessitated by any action on the part of the Applicant. Accordingly, the finality of the Final Office Action is premature. The Examiner's position that Claim 17 corresponds in substance to other claims, such as Claim 13, is without merit. There are



numerous elements within Claims 14, 15, 16 and 17 that are not within Claim 17. Moreover, this position on the part of the Examiner ignores that unfairness that results by making a rejection in a final office action that was not previously made, e.g., the Applicant is denied an opportunity to fully respond. This rejection was not necessitated by any action on the part of the Applicant; which is the parameter that is controlling. The Applicant responds to this rejection by pointing out that Takasago et al. do not disclose or suggest performing the actions recited in Claims 13-17. Specifically, Takasago et al. do not disclose the predetermined time periods recited by the rejected claims in a range between 50  $\mu$ s and 75  $\mu$ s. Furthermore, Takasago et al. do not disclose that the recited period of time is approximately 60  $\mu$ s. Furthermore, Takasago et al. do not disclose or suggest a recording device having thresholds that are a preselected fraction of the signal level representative of the maximum deviation of from the center of the track. Nor do Takasago et al. disclose or suggest a recording device that discontinues recording is the tracking signal exceeds a threshold for a predetermined period of time. Accordingly, this rejection is respectfully, traversed.

The Final Office Action rejects Claims 5 and 6 under the provisions of 35 U.S.C. §103(a) as being unpatentable over Takasago in view of Tsuchiya et al. (JP 01253638 A). The Examiner admits that Takasago does not disclose the steps of a) examining the integrity of predetermined test tracks of the record carrier, b) examining the integrity of tracks adjacent the relevant test track each time that upon the examination of the test track it appears to be defective, in order to determine this way the number of tracks affected by the same spot defect, c) entering the relevant tracks in a defect list each time that the number thus determined in step (b) is greater than a predetermined threshold value, and d) storing the defect list into a memory. The Examiner's position is that Tsuchiya et al. teach the foregoing recited elements. The Applicant respectfully disagrees. Tsuchiya et al. teach a reference value WC that is set to have the magnitude of defect smaller than a normal checking reference. The defects are detected using a regenerated signal RF, the tracking error signal TE and a focused error signal FE within a single track. Tsuchiya et al. teach the recording of each defect that exceeds the reference value WC within a memory and then reads the contents of the memory, which includes each individual defect. The Applicant, respectfully, points out that this is not equivalent to the recitation within the rejected claims of c) entering the relevant tracks to any defect list each time that the number thus determined in step (b) is greater than a predetermined threshold value. Tsuchiya et al. teach

recording of each individual defect within a track. There is no suggestion or disclosure within Tsuchiya et al. for providing a threshold value to determine the number of tracks that are affected by the same spot defect and only recording those defects that are at least as large as the threshold.

Regarding Claim 6, Claim 6 depends from Claim 5 which is previously discussed is believed to be allowable; therefore, Claim 6 is also believed to be allowable.

The Final Office Action rejects Claims 7 and 8 under the provisions of 35 U.S.C. §103(a) as being unpatentable over the combination of Takasago with Tsuchiya et al. and further in view of U.S. Patent No. 4,821,521 issued to Hosoya (hereinafter referred to as Hosoya).

As previously discussed the combination of Takasago with Tsuchiya et al. teaches recording of each individual defect within a track. There is no suggestion or disclosure within Tsuchiya et al. for providing a threshold value to determine the number of tracks that are affected by the same spot defect and only recording those defects that are at least as large as the threshold. The addition of Hosoya to the combination of Takasago and Tsuchiya et al. does nothing to correct this error. Hosoya at column 6, lines 22-25 discloses storing defective sector information in the optical disk. The Applicant respectfully points out that Claim 7 includes all the features of Claim 5 and that the defect list as recited by Claim 5 only includes tracks affected by the same spot defect wherein the number of tracks is greater than a predetermined threshold. The cited references, either alone or taken in combination, do not disclose or suggest the foregoing features of creating a defect list as recited by Claim 5 that includes tracks affected by the same spot defect wherein the number of tracks is greater than a predetermined threshold. Accordingly this rejection is, respectfully, traversed.

Regarding the rejection to Claim 8 under the provisions of 35 U.S.C. §103(a) as being unpatentable over the combination of Takasago with Tsuchiya et al. and further in view of Hosoya. The combination of Takasago with Tsuchiya et al. teaches recording each individual defect within a track. There is no suggestion or disclosure within Tsuchiya et al. for providing a threshold value to determine the number of tracks that are affected by the same spot defect in only recording those defects that are at least as large as the threshold. Claim 6 depends from Claim 5 and Claim 8 depends from Claim 6. The addition of Hosoya to the combination of Takasago and Tsuchiya et al. does nothing to correct this error. Hosoya at column 2, lines 64-68 and FIG. 7 teaches referring to defective sector information in the optical disk. The Applicant

respectfully points out that Claim 8 includes all the features of Claim 5 and that the defect list as recited by Claim 5 only includes tracts affected by the same spot defect wherein the number of tracts is greater than a predetermined threshold. The cited references, either alone or taken in combination, do not disclose or suggest the foregoing features of creating a defect list as recited by Claim 5 that includes tracts affected by the same spot defect wherein the number of tracts is greater than a predetermined threshold. Accordingly this rejection is, respectfully, traversed.

The Final Office Action rejects Claim 20 under the provisions of 35 U.S.C. §103(a) as being unpatentable over Takasago in view of Tsuchiya et al. The Applicant, respectfully points out that there is no suggestion or disclosure within Tsuchiya et al for providing a threshold value to determine the number of tracks that are affected by the same spot defect and only recording those defects that are at least as large as the threshold as recited by Claim 5. Accordingly, the rejection of Claim 5, as previously discussed, is believed to be in error. Claim 20 depends from Claim 5; therefore, Claim 20 is also believed to be allowable.

Applicant is not aware of any additional patents, publications, or other information not previously submitted to the Patent and Trademark Office which would be required under 37 C.F.R. 1.99.

In view of the foregoing amendment and remarks, the Applicant believes that the present application is in condition for allowance, with such allowance being, respectfully, requested.

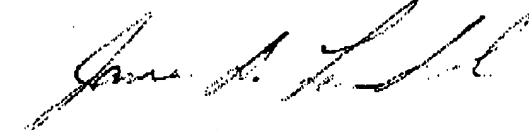
Respectfully submitted,

By 

James D. Leimbach, Reg. 34,374  
Patent Attorney (585) 381-9983

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